

60/647,232

* * * * * STN Columbus * * * * *

FILE 'HOME' ENTERED AT 15:14:53 ON 05 NOV 2007

=> file biosis medline caplus wpids uspatfull
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*** YOU HAVE NEW MAIL ***

=> s extract? (4a) nucleic acid? and dendrimer?
3 FILES SEARCHED...

L1 135 EXTRACT? (4A) NUCLEIC ACID? AND DENDRIMER?

=> s l1 and particles
L2 85 L1 AND PARTICLES

=> s l2 and (multilayer or multi layer) (3a) dendrimer?
L3 1 L2 AND (MULTILAYER OR MULTI LAYER) (3A) DENDRIMER?

=> d l3 bib abs

L3 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2004:433295 CAPLUS
DN 141:3801
TI Extraction of nucleic acids and proteins
with dendrimers, and dendrimer compositions
IN Matsunaga, Tadashi; Takeyama, Haruko; Yoza, Brandon; Fukushima, Kazuhisa;
Sato, Sari
PA Yokokawa Electric Corp., Japan
SO Jpn. Kokai Tokkyo Koho, 13 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------|------|----------|-----------------|----------|
| JP 2004150797 | A | 20040527 | JP 2002-269867 | 20020917 |
| JP 3756477 | B2 | 20060315 | | |
| US 2005260600 | A1 | 20051124 | US 2003-647232 | 20030826 |

PRAI JP 2002-269867 A 20020917
AB Multilayer dendrimers are formed around the surfaces
of fine particles, and amino groups are formed on the surfaces
of the dendrimers for extraction or collection of nucleic acids or
proteins by the amino groups. Aminosilane-treated bacterial magnetic
particles (BMP) were treated with a 1:1 mixture of MeOH and
ethylenediamine and then treated with Me acrylate and ethylenediamine to

give dendrimers. The 6th generation dendrimer had 1.7 + 106 amine groups/BMP and could collect 24.83 μ g calf thymus DNA per 100 μ g BMP. The collected DNA could be separated from the modified BMP by vigorously stirring in a 2 M NaCl solution

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=> d his

(FILE 'HOME' ENTERED AT 15:14:53 ON 05 NOV 2007)

FILE 'BIOSIS, MEDLINE, CAPLUS, WPIDS, USPATFULL' ENTERED AT 15:15:22 ON
05 NOV 2007

L1 135 S EXTRACT? (4A) NUCLEIC ACID? AND DENDRIMER?
L2 85 S L1 AND PARTICLES
L3 1 S L2 AND (MULTILAYER OR MULTI LAYER) (3A) DENDRIMER?

=> s l2 and (multilayer or multi layer)
L4 10 L2 AND (MULTILAYER OR MULTI LAYER)

=> s 14 not 13
L5 9 L4 NOT L3

=> dup rem 15
PROCESSING COMPLETED FOR L5
L6 9 DUP REM L5 (0 DUPLICATES REMOVED)

=> d 16 bib abs 1-9

L6 ANSWER 1 OF 9 USPATFULL on STN
AN 2007:222138 USPATFULL
TI Coherent electron junction scanning probe interference microscope,
nanomanipulator and spectrometer with assembler and DNA sequencing
applications
IN Zorn, Miguel Delmar, Portland, OR, UNITED STATES
PI US 2007194225 A1 20070823
AI US 2005-246665 A1 20051007 (11)
DT Utility
FS APPLICATION
LREP Miguel D. Zorn, 4820 SW Barbur Blvd. Apt # 31, Portland, OR, 97239, US
CLMN Number of Claims: 152
ECL Exemplary Claim: 1
DRWN 45 Drawing Page(s)
LN.CNT 7190

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention is directed toward the fabrication and operation
of a coherent electron quantum interferometer for scanning probe
microscopy. The device may also be operated in a mode where single
electrons are used in the sample probe. The device may operate in modes
where scanning probe behavior, Kondo effect and/or Aharonov-Bohm
interferometer behavior can be observed. The use of nucleic acid
molecules attached to the probe structures allows for interrogation of
RNA and DNA molecules absorbed on the sample substrate and potentially
the sequencing of genetic material using coherent spectroscopic electron
imaging in conjunction with prior art probe methods. An embodiment with
genetic algorithm generated molecular arrays and circuit prototyping
areas is provided in a preferred embodiment for an evolvable hardware
embodiment of a coherent electron interferometer nanomanipulator
platform. Nanotweezers with Raman optical and mass spectroscopic means
are provided in a preferred embodiment for assembly, characterization
and nanomanipulation.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 2 OF 9 USPATFULL on STN
AN 2007:147583 USPATFULL
TI Ultrasensitive bioanalytical assays based on the use of high-gain
catalytic chemical amplification
IN Lelement, Mark, Rochester, NY, UNITED STATES
Gysling, Henry J., Rochester, NY, UNITED STATES

PI US 2007128679 A1 20070607
AI US.2005-292585 A1 20051202 (11)
DT Utility
FS APPLICATION
LREP JAECKLE FLEISCHMANN & MUGEL, LLP, 190 Linden Oaks, ROCHESTER, NY,
14625-2812, US
CLMN Number of Claims: 20
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 1263

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention relates to ultrasensitive bioanalytical assays based on the use of high-gain catalytic chemical amplification methods. The ultrasensitive bioanalytical assays of the invention utilize high gain catalytic chemical amplification methods to detect the presence and to quantify the concentrations of target analytes labeled with specific binding reagents or biomarkers comprising a catalyst or a catalyst precursor.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 3 OF 9 USPATFULL on STN
AN 2005:104955 USPATFULL
TI Multimolecular devices and drug delivery systems
IN Cubicciotti, Roger S., Montclair, NJ, UNITED STATES
PI US 2005089890 A1 20050428
AI US 2004-872973 A1 20040621 (10)
RLI Division of Ser. No. US 2001-907385, filed on 17 Jul 2001, GRANTED, Pat. No. US 6762025 Continuation of Ser. No. US 1998-81930, filed on 20 May 1998, GRANTED, Pat. No. US 6287765
DT Utility
FS APPLICATION
LREP Licata & Tyrrell P.C., 66 East Main Street, Marlton, NJ, 08053, US
CLMN Number of Claims: 119
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 15620

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Multimolecular devices and drug delivery systems prepared from synthetic heteropolymers, heteropolymeric discrete structures, multivalent heteropolymeric hybrid structures, aptameric multimolecular devices, multivalent imprints, tethered specific recognition devices, paired specific recognition devices, nonaptameric multimolecular devices and immobilized multimolecular structures are provided, including molecular adsorbents and multimolecular adherents, adhesives, transducers, switches, sensors and delivery systems. Methods for selecting single synthetic nucleotides, shape-specific probes and specifically attractive surfaces for use in these multimolecular devices are also provided. In addition, paired nucleotide-nonnucleotide mapping libraries for transposition of selected populations of selected nonoligonucleotide molecules into selected populations of replicatable nucleotide sequences are described.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 4 OF 9 USPATFULL on STN
AN 2005:10967 USPATFULL
TI Microfluidic devices comprising biochannels
IN Blackburn, Gary, Glendora, CA, UNITED STATES
PA Motorola, Inc. (U.S. corporation)
PI US 2005009101 A1 20050113
AI US 2004-886408 A1 20040707 (10)
RLI Division of Ser. No. US 2001-861171, filed on 17 May 2001, PENDING
DT Utility

FS APPLICATION
LREP Robin M. Silva, Dorsey & Whitney LLP, Intellectual Property Department,
Four Embarcadero Center, Suite 3400, San Francisco, CA, 94111-4187
CLMN Number of Claims: 15
ECL Exemplary Claim: 1
DRWN 38 Drawing Page(s)
LN.CNT 5199

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention is directed to a variety of microfluidic devices with configurations including the use of biochannels or microchannels comprising arrays of capture binding ligands to capture target analytes in samples. The invention provides microfluidic cassettes or devices that can be used to effect a number of manipulations on a sample to ultimately result in target analyte detection or quantification.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 5 OF 9 USPATFULL on STN
AN 2004:57477 USPATFULL
TI Multilayerd microfluidic devices for analyte reactions
IN Briscoe, Cynthia G., Tempe, AZ, UNITED STATES
Burdon, Jeremy W., Scottsdale, AZ, UNITED STATES
Chan, Tony, Scottsdale, AZ, UNITED STATES
Barenburg, Barbara Foley, Phoenix, AZ, UNITED STATES
Grodzinski, Piotr, Chandler, AZ, UNITED STATES
Hawkins, George, Gilbert, AZ, UNITED STATES
Huang, Rong-Fong, Fremont, CA, UNITED STATES
Kahn, Peter, Phoenix, AZ, UNITED STATES
Marcero, Robert, Chandler, AZ, UNITED STATES
McGarry, Mark W., San Diego, CA, UNITED STATES
Tuggle, Todd, Oceanside, CA, UNITED STATES
Yu, Huinan, Buffalo Grove, IL, UNITED STATES
PI US 2004043479 A1 20040304
AI US 2002-149318 A1 20021114 (10)
WO 2000-US33499 20001211
DT Utility
FS APPLICATION
LREP Robin M Silva, Dorsey & Whitney, Intellectual Property Department Suite
3400, Four Embarcadero Center, San Francisco, CA, 94111-4187
CLMN Number of Claims: 12
ECL Exemplary Claim: 1
DRWN 26 Drawing Page(s)
LN.CNT 4513

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention relates generally to methods and apparatus for conducting analyses, particularly microfluidic devices. In preferred aspects, the devices are fabricated using ceramic multilayer technology to form devices in which parallel, independently controlled molecular reactions, such as nucleic acid amplification reactions including the polymerase chain reaction (PCR) can be performed. Additionally, the devices can include and comprise micro-gas chromatographs similarly fabricated from ceramics.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 6 OF 9 USPATFULL on STN
AN 2003:271005 USPATFULL
TI Microfluidic devices comprising biochannels
IN Blackburn, Gary, Pasadena, CA, UNITED STATES
PI US 2003190608 A1 20031009
US 6875619 B2 20050405
AI US 2001-861171 A1 20010517 (9)
RLI Continuation-in-part of Ser. No. US 1999-438600, filed on 12 Nov 1999,
GRANTED, Pat. No. US 6361958 Continuation-in-part of Ser. No. US

1999-460281, filed on 9 Dec 1999, PENDING Continuation-in-part of Ser. No. US 1999-460283, filed on 9 Dec 1999, PENDING Continuation-in-part of Ser. No. US 1999-458534, filed on 9 Dec 1999, PENDING Continuation-in-part of Ser. No. US 1999-464490, filed on 15 Dec 1999, PENDING Continuation-in-part of Ser. No. US 1999-466325, filed on 17 Dec 1999, PENDING Continuation-in-part of Ser. No. US 2000-492013, filed on 26 Jan 2000, PENDING

DT Utility

FS APPLICATION

LREP FLEHR HOHBACH TEST ALBRITTON & HERBERT LLP, Suite 3400, Four Embarcadero Center, San Francisco, CA, 94111-4187

CLMN Number of Claims: 12

ECL Exemplary Claim: 1

DRWN 42 Drawing Page(s)

LN.CNT 5195

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention relates to a microfluidic device with microchannels that have separated regions which have a member of a specific binding pair member such as DNA or RNA bound to porous polymer, beads or structures fabricated into the microchannel. The microchannels of the invention are fabricated from plastic and are operatively associated with a fluid propelling component and detector.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 7 OF 9 USPATFULL on STN

AN 2003:187864 USPATFULL

TI Coded particles for multiplexed analysis of biological samples

IN Ravkin, Ilya, Palo Alto, CA, UNITED STATES

Goldbard, Simon, San Jose, CA, UNITED STATES

Zarowitz, Michael A., San Carlos, CA, UNITED STATES

Hyun, William C., San Francisco, CA, UNITED STATES

PI US 2003129654 A1 20030710

AI US 2002-273605 A1 20021018 (10)

RLI Continuation-in-part of Ser. No. US 2000-549970, filed on 14 Apr 2000, PENDING Continuation-in-part of Ser. No. US 2000-694077, filed on 19 Oct 2000, PENDING Continuation-in-part of Ser. No. US 2002-120900, filed on 10 Apr 2002, PENDING

PRAI WO 2001-US51413 20011018

US 2001-343682P 20011026 (60)

US 2001-343685P 20011026 (60)

US 2001-344482P 20011026 (60)

US 2002-413675P 20020924 (60)

US 2002-359207P 20020221 (60)

US 2001-345606P 20011026 (60)

US 2001-344483P 20011026 (60)

US 1999-170947P 19991215 (60)

US 1999-129664P 19990415 (60)

US 2001-348025P 20011026 (60)

US 2001-348027P 20011026 (60)

US 2002-362001P 20020305 (60)

US 2002-362055P 20020305 (60)

US 2002-362238P 20020305 (60)

US 2002-370313P 20020404 (60)

US 2002-383091P 20020523 (60)

US 2002-383092P 20020523 (60)

US 2002-413407P 20020924 (60)

DT Utility

FS APPLICATION

LREP KOLISCH HARTWELL, P.C., 520 S.W. YAMHILL STREET, SUITE 200, PORTLAND, OR, 97204

CLMN Number of Claims: 65

ECL Exemplary Claim: 1

DRWN 22 Drawing Page(s)

LN.CNT 5036

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Systems including apparatus, methods, compositions, and kits for multiplexed analysis of biological samples or reagents using coded particles. The coded particles may be used to form positionally flexible arrays of samples and/or reagents in which the samples and/or reagents are identified by codes on the particles

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 8 OF 9 USPATFULL on STN

AN 2002:60923 USPATFULL

TI Single-molecule selection methods and compositions therefrom

IN Cubicciotti, Roger S., Montclair, NJ, UNITED STATES

PI US 2002034757 A1 20020321

US 6762025 B2 20040713

AI US 2001-907385 A1 20010717 (9)

RLI Continuation of Ser. No. US 1998-81930, filed on 20 May 1998, GRANTED, Pat. No. US 6287765

DT Utility

FS APPLICATION

LREP LICATA & TYRRELL P.C., 66 E. MAIN STREET, MARLTON, NJ, 08053

CLMN Number of Claims: 129

ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 15716

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Single-molecule selection methods are provided for identifying target-binding molecules from diverse sequence and shape libraries. Complexes and imprints of selected target-binding molecules are also provided. The subject selection methods are used to identify oligonucleotide and nonnucleotide molecules with desirable properties for use in pharmaceuticals, drug discovery, drug delivery, diagnostics, medical devices, cosmetics, agriculture, environmental remediation, smart materials, packaging, microelectronics and nanofabrication. Single oligonucleotide molecules with desirable binding properties are selected from diverse sequence libraries and identified by amplification and sequencing. Alternatively, selected oligonucleotide molecules are identified by sequencing without amplification. Nonnucleotide molecules with desirable properties are identified by single-molecule selection from libraries of conjugated molecules or nucleotide-encoded nonnucleotide molecules. Alternatively, target-specific nonnucleotide molecules are prepared by imprinting selected oligonucleotide molecules into nonnucleotide molecular media. Complexes and imprints of molecules identified by single-molecule selection are shown to have broad utility as drugs, prodrugs, drug delivery systems, willfully reversible cosmetics, diagnostic reagents, sensors, transducers, actuators, adhesives, adherents and novel multimolecular devices.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 9 OF 9 USPATFULL on STN

AN 2001:152673 USPATFULL

TI Methods for detecting and identifying single molecules

IN Cubicciotti, Roger S., Montclair, NJ, United States

PA Molecular Machines, Inc., Montclair, NJ, United States (U.S. corporation)

PI US 6287765 B1 20010911

AI US 1998-81930 19980520 (9)

DT Utility

FS GRANTED

EXNAM Primary Examiner: Fredman, Jeffrey

LREP Licata & Tyrrell P.C.

CLMN Number of Claims: 27

ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 15456

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Multimolecular devices and drug delivery systems prepared from synthetic heteropolymers, heteropolymeric discrete structures, multivalent heteropolymeric hybrid structures, aptameric multimolecular devices, multivalent imprints, tethered specific recognition devices, paired specific recognition devices, nonaptameric multimolecular devices and immobilized multimolecular structures are provided, including molecular adsorbents and multimolecular adherents, adhesives, transducers, switches, sensors and delivery systems. Methods for selecting single synthetic nucleotides, shape-specific probes and specifically attractive surfaces for use in these multimolecular devices are also provided. In addition, paired nucleotide-nonnucleotide mapping libraries for transposition of selected populations of selected nonoligonucleotide molecules into selected populations of replicatable nucleotide sequences are described.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

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